

MONTANA STATE LIBRARY

004 028
 13 inV
 12 No.3

PLEASE



September 1994

STATE DOCUMENTS COLLECTION

Volume 12 No. 3

SEP 30 1994



WIC Project

The Montana Department of Health and Environmental Sciences (DHES) Supplemental Food Program for Women, Infants and Children (WIC) is replacing its existing benefits delivery system. Software based upon the general design concepts of the Illinois WIC system, as modified for the Montana WIC program, has been installed. The system utilizes decentralized, distributed microcomputer-based functionality that communicates to the central PC host via unattended dial-up overnight.

An aggressive implementation timeline was used. Implementation occurred in two phases. During the initial (first) phase, ten (10) local WIC agencies were converted (three of which were pilot sites) along with the central office using the donor software. The second phase plan included the introduction into the system of approximately two additional local agencies per month until all ten local agencies were functionally included. Twenty-eight remaining agencies will be converted by state WIC staff by December, 1994.

Participant characteristics and certification data are entered into the

system at the clinic level. The system captures essential food issuance data from participant ID's, food prescriptions, and food instrument serial numbers.

What's Inside

WIC Project	1
NOVELL MLA	2
Calendar of Events	2
Deadline/Editor's Note	2
Status Of Electronic Records ...	3
Customer Support Center	4
Internet Pilot Project Status	5
Montana's Video Network	5
Telephone Maintenance Contract ...	5
IVR Contract Signed	6
New Telephone Directory Listings	6
Cellular Telephone Services	7
Mandatory 10-digit Dialing	7
Calling Card Fraud	7
ORACLE	8
ITMG, August Meeting	8
On Track With WordPerfect	8
Assigning Macros in Lotus 1-2-3 ...	9
Looking Into Lotus	10
ZIP!Office	11
ZIP!Tips	12
More Windows Freebies... ..	13
LPC-FINALIST	14
SYNCSORT Tips	14
XPEDITER	15
Term Contract Status	16
Suggestions	16
ISD Customer Support	16
Distribution Notes	16
Training News	17



ISD NEWS & VIEWS

Data captured at the clinic level is aggregated at the local agency level for program management and reporting to the state agency.

All routine inter-site data communications use dial-up, asynchronous modem facilities on a store and forward basis. Automatic data calls will be made on a 24 hour cycle. All calls originate from the State WIC office.

Telecommunication facilities employed will allow remote dial-up and operation of clinic and administrative systems and networks, enabling state agency technical

personnel to perform routine maintenance and troubleshooting without an on-site visit.

WIC helps low-income women (pregnant, breastfeeding and those who recently had a baby) and infants and children (up to age five) who are at health risk. WIC benefits include:

- Nutrition evaluation, education and guidance to improve eating behaviors;
- Supplemental, highly nutritious foods such as iron-fortified cereal, milk, eggs, peanut butter or dried beans, juice, and for the mother who chooses not to breast-feed, iron-fortified infant formula;
- Access to health care programs plus referral to private and public health care providers.

The DHES is a multi-functional public health and environmental protection agency designated to promote and protect the health of the people of Montana. Activities of DHES include a variety of administrative and regulatory functions. DHES is involved in the approval of construction or purchase of certain medical facilities, inspection and certification of public health care facilities, inspection and regulation of hazardous materials in the environment, and the administration of a number of Federally funded health services.

For further information, please contact Dave Thomas (444-4747) WIC Program Manager, or Laura Hull (444-5531).



Calendar of Events

September 8:

**Oracle Seminar,
"Transforming Government
Agencies into Viable
Competitors", 8:00-4:30,
Colonial Inn. To register call:
(303) 850-2241.**

September 9:

**Oracle: Seminar,
"Transforming Government
Agencies into Viable
Competitors", 8:00-11:30,
Colonial Inn.**

September 13:

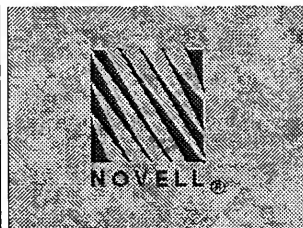
**Information Technology
Advisory Council (ITAC)
meeting.**

September 21:

**Information Technology
Managers' Group (ITMG)
meeting.**

October 7:

**Oracle/PowerBuilder User
Group meeting, 8:00-12:00,
Helena College of Technology.**



NOVELL Master License Agreement

Background

The State has adopted the concept of an enterprise network operating system. Novell NetWare was selected as the State standard LAN operating system, and most recently NetWare 4.x was designated as the supported level of software. The State has also established a site license agreement with Novell for the purchase of NetWare 4.x and other Novell products. The agreement, called the Master License Agreement (MLA), started April 15, 1994 and will run for two years. It may be renewed for

Deadline/Editor's Note

If you would like to submit an article to *News and Views* for publication, please send it to Curt Secker or Irv Vavruska, preferably via ZIP!Mail. Please have your article in by the date listed below for inclusion in the corresponding month:

October Issue	09-16-94
November Issue	10-21-94
December Issue	11-18-94

additional two-year periods. Purchase of NetWare via the MLA will help accomplish several goals: promote compliance with the statewide standard; facilitate an enterprise solution for network operating systems; and promote data sharing throughout the State.

The MLA provides many benefits to the State as an enterprise, as well as to the agencies: with per node pricing, the cost is much less than with per server pricing (economies of scale); several other Novell products are available through the MLA at greatly reduced prices, including LAN WorkPlace and LAN WorkGroup; direct support is included under the MLA with unlimited phone support, 24 hours per day, 7 days per week (limited to designated contacts).

Ordering Information for NetWare 4.x

Agencies have elected to recover the costs of NetWare 4.x through the data network rate. The software is available now, even though the data network rate will not change until FY96 (July 1, 1995).

Agencies will not be required to pay for NetWare 4.x software licenses. The data network rate includes an amount necessary to cover purchases of additional licenses to meet estimated growth through the end of the FY96/97 biennium.

The MLA provides many benefits to the State as an enterprise, as well as to the agencies....

Ordering Process:

- Agency needs to complete MLA Order Form only.
- Agency sends MLA Order Form to ISD (Brett Boutin).
- ISD will check order for accuracy and enter information into a database, then forward to LAN Operations.

- LAN Operations works with ordering agency to obtain server name, address, and NDS tree.
- LAN Operations will provide software to the agency across the network. If this is not feasible, ISD will loan CD ROM disks to the agency, or loan the agency a portable computer with NetWare 4.x loaded on it.
- Agencies will be responsible for ordering and purchasing their own documentation. There is no discount available through Novell. Agencies should obtain documentation according to their purchasing authority. One suggested vendor is Lithopro* who offers a 15% discount. Agencies requiring documentation should issue a purchase order directly to the vendor (no routing through ISD).

*Lithopro
41656 Christie
Fremont, CA 94538
Phone: (800) 959-9990
FAX: (510) 651-5956

OTHER Novell Products:

- The data network rate only covers NetWare software for LAN nodes. Agencies are responsible for the purchase of OTHER Novell Products, such as LAN WorkPlace and LAN WorkGroup. Under the terms of the MLA, it is mandatory to purchase maintenance with every license. Documentation is not included with OTHER products, and is the responsibility of the ordering agency.

Ordering Process:

- Send the completed MLA Order Form to ISD. ISD will provide agencies copies of OTHER products on diskette. At the end of every quarter (7/15, 10/15, 1/15, 4/15),

Computing Policy and Development (CPD) issues a report to Novell which lists the agencies and quantity of software copied. Novell will invoice agencies individually for copies ordered during the quarter.

- Agencies are responsible for paying for copies of OTHER products, and for installing the product on their machines. Agencies should contact ISD for type of delivery - mail, deadhead, pickup, etc.

NOTE: Novell does not provide diskettes to the agencies. Diskettes are provided by ISD only. Documentation is NOT included when ordering copies of OTHER software. Desired documentation must be ordered separately.

For a copy of the MLA Order Form or if you have any questions about the MLA, please contact Brett Boutin (444-0515).

Status Of Electronic Records Activities In The States

by Sue Sorneson
(The following is a summary of a working group project which was conducted at the 1994 Advanced Institute for Archival Administrators June 7-14, 1994).

In 1994 a working group took on the task of surveying states which had attended current and previous institutes. A general profile of all the information technology and policy environment in which state archives and state records management programs work was developed from the survey.

Information Policy

The working group found that 50% of the states surveyed now have a centralized Information Resources Management (IRM) function in their state. In addition, 68% of the states now have an information policy body. Of the states that have such a body, 74% are formally constituted and 74% have representation from the archives and/or records management agencies. Despite the activity in information policy, 74% do not have a published information policy.

Legislation concerning optical imaging was the most prevalent, with 45% having legislation pertaining to optical media.

Legal Issues

Legislation relating to electronic records issues has been proposed in 85% of the states attending the Institute. Thirty-one percent of the states had legislation passed concerning access or freedom of information, while several states had legislation for government reorganization or agency creation that would in some way affect electronic records administration. Legislation concerning optical imaging was the most prevalent, with 45% having legislation pertaining to optical media. A few states also had laws passed concerning geographic information systems.

Planning

Seventy-nine percent of the states have completed some form of planning regarding electronic records. Planning activities range from formal IRM plans to general staff discussions. Over half of the respondents have a strategic or other plan that includes electronic records. Twelve respondents state that other agencies are responsible for the plans - usually an information technology agency of some sort. In addition, State Historical Records Advisory Boards in 21 states are including electronic records issues in their planning process.

Electronic Records

Activities

Twenty-eight respondents noted they take an advisory role regarding electronic records. Advice takes many forms, including: membership on interagency committees; publication

of technical bulletins, standards, and guidelines; testimony before administrative and legislative committees; reviewing agency information

resource plans; and records officer training. The electronic records issues on which advice is given are also wide ranging - digital imaging systems, retention, standards, system procurement, storage, legality, access, record formats, geographic information systems, and agency record policy.

Administrative Profile

The organizational placement of the state archives, the state records management programs, and the state information technology programs varies considerably, from historical societies, state libraries, secretary of state offices, and department of administration.

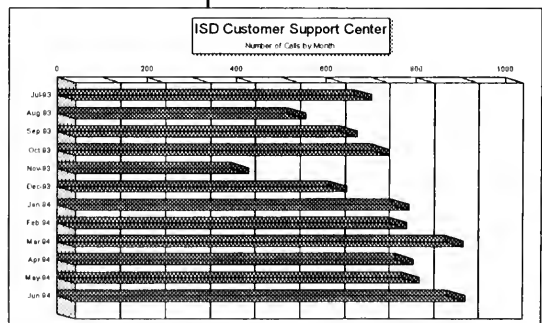
Conclusion

The status reports detailed primary issues and concerns facing state archival and records management programs. Public policy issues relating to accessing public records, in particular electronic databases, the commercial sale of public information, and security were

highlighted by most states. Other issues pointed to the relationship of electronic records management across intergovernmental lines resulting in federal, state, and local shared systems.

Customer Support Center, "How May I Help You?"

"Got a problem (opportunity)? Do you need ISD assistance for any of your information processing requirements? Then contact the ISD Customer Support Center (formerly the Network Assistance Center), which is our central point of contact." These words should be familiar to you since they appear in each issue of *ISD News & Views*. Have you ever wondered how many calls each month that this section receives? Now is the time for you to find out! The Customer Support Center averaged 687 calls per month over a recent 12 month period! That is a lot of calls. Please see the graph below for number of calls by month. To reach the Customer Support Center call 444-2000.





Internet Pilot Project Status

The State of Montana is currently participating in a pilot project for Internet access. During this pilot project, connectivity has been offered to State and/or local government subdivisions. To date, there are approximately 70 backbone users and 5 dial-in (asynchronous) entities accessing the Internet.

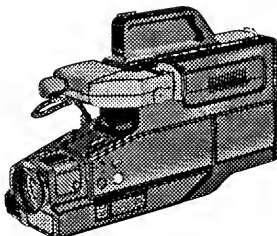
As the Internet grows in popularity, IP addresses begin to dwindle. There is a growing concern within the State that we are running low on our current Class "B" addresses (which are required for Internet access). Consequently, we have applied for a block of Class "C" addresses which will remedy this shortage (at least for our state).

The Internet, as a whole, is having a problem handling the tremendous volume of new users, and associated traffic, on the net. Due to this increased utilization, a user on the Internet might experience sluggish response times. The Internet backbone is being restructured and should improve response time. The restructuring should begin in mid-September and continue through October.

ISD is actively reviewing the process for sending and receiving electronic mail via the Internet. The intent is to tie Internet mail into the Statewide ZIP!Mail/ZIP!Office system. This would provide users with a single e-mail system for State and Internet e-mail. Users wanting to receive Internet e-mail will need to have their mail addressed as "userid%zipserver number@mt.gov"

(i.e. "ex0039%zip02@mt.gov").

If you wish to register for Internet access, or you have any questions concerning the Internet, contact Ron Heilman (444-2924) Data Hauler on the Internet Highway, for assistance.



The State of Montana's Video Network is on the Move!

The State presently has Interactive Video systems located in seven cities throughout Montana. They are Helena, Kalispell, Missoula, Bozeman, Great Falls, Billings and Miles City. These systems are used by state agencies to hold meetings and training sessions, and can save a considerable amount of money in travel costs, and lost time while driving to these locations. Many changes are taking place that you should be aware of.

The Helena Interactive Video system has been moved from the Capitol Building to the Helena College of Technology of The University of Montana (formerly the Helena Vo-Tech), Room 211. The folks at the Helena College of Technology will run the Interactive Video system, and provide access to all state agencies.

The University of Montana--Missoula is moving their Interactive Video

system from McGill Hall to a specially designed room at the Field House, Room 161. This should increase the availability of the system in Missoula.

There is a new Interactive Video location available for use in Butte. The Interactive Video system is owned by the Montana Power Company and operated by TRI Touch America. It is made available to state agencies under a cooperative arrangement with the State. The location is the Hennessy Building, 130 N. Main - 2nd Floor Auditorium, Butte.

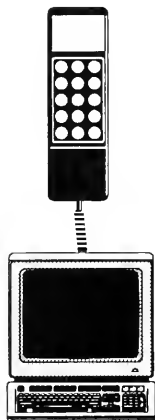
To schedule Interactive Video conferences or to request copies of the new interactive video rate card, which list the new locations, contact Sandi Benson (444-6788) from the Customer Support Center.

Telephone Switch and Network Maintenance Contract

Last November, ISD released a Request for Proposal for Communication Services and Maintenance for the State of Montana and The Montana University System. Three bidders responded to the State's request. WjTel Communications Systems was awarded the contract in July, as the most responsive, cost-effective bidder.

The new contract covers maintenance and repair on the 22 State-owned telephone switches. This includes performing all adds/moves/changes for both the voice and data network connections associated with the switches. The State could save almost \$250,000 the first year of this seven year contract

The final result of this effort was due to the cooperation of University and ISD personnel working together to develop a proposal and contract that met agency and University needs while protecting the overall integrity of the network.



Interactive Voice Response Contract Signed

ISD has signed a contract with Microlog to provide an interactive voice response (IVR) system. Interactive voice response systems replace or augment human operators and associated computer terminals. Callers may access computerized information on a 24-hour basis simply by pressing the keys on their touch-tone telephones or through voice input. An IVR system automatically answers each telephone call, prompts the caller by describing the various services and information available, and provides the information requested by retrieving such information from a host computer.

ISD, in conjunction with personnel from the Departments of Social and Rehabilitation Services and Labor and Industry evaluated seven proposals for company qualification, technical capabilities and cost. Microlog was awarded the contract as a result of the overall evaluation. The system is scheduled to be installed and operational this fall.

New Government Telephone Directory Listings

The State of Montana is currently undergoing a major project in rewriting the State government telephone listings in the US West telephone directory. The Governor's office is working closely with the Department of Administration on this effort.

Lois Menzies, Director of the Department of Administration, states that, "A basic theme of the Racicot Administration is openness in government as a way of empowering Montanans to take ownership in their government and to rebuild the trust that has diminished with time. The project to rewrite government telephone listings is an effort to foster openness by helping Montanans more easily access state government."

This project is a major commitment on the Governor's part. Governor Racicot recently stated in a speech,

"...we are ...in the process of rewriting the government listings

in every phone book across the State. The idea of this immense project is to make the listings more customer-friendly, that is, to have listings not for the government, but for the owners of government, the people who use it.

These new listings will begin phasing in near the end of the year. But they will have, for instance, one page of the most frequently used government phone numbers, not arranged by department, but arranged by commonly used terms such as "Welfare".

The following listings will then be greatly condensed, considerably clarified and ...more helpful. ...you won't have to transfer quite so many calls to the correct extension... We want to get the users of government to the proper service of government as quickly and efficiently as possible."

By providing better directory listings, we can help the users of government help themselves by letting them dial

It is estimated that each time a phone call is transferred, four minutes of someone's productive time is being used. This time could be used elsewhere if the caller could have dialed the correct number on their own.

the number they need directly rather than having them be transferred from number to number. This not only saves time, but also saves money. It is estimated that each time a phone call is

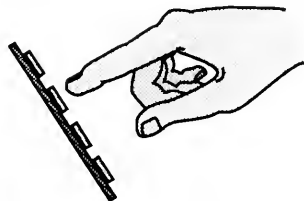
transferred, four minutes of someone's productive time is being used. This time could be used elsewhere if the caller could have dialed the correct number on their own. Less commonly used phone numbers will be screened out and removed from the directory listings.

The State is basing this directory listing restructure on a model used in Oregon. On the surface, this appears to be a simple project, but in reality,

these functional listings require much planning and forethought. The goal is to be less intimidating to the public. The new listings for the Helena directory need to be given to US West by December 1, 1994. Other directories throughout Montana will be revised following the Helena directory.

Cellular Telephone Services

The State does not have a term contract for cellular services yet and has not determined if one will be developed. This is a very expensive type of communications, but for some agencies who are always on the road, like State Lands or DNRC, it is a necessary service to have. Two companies providing this service are CommNet2000 and Cellular One. Both companies provide different services and have different costs. For more information on cellular services, contact Ed Baum (444-2861) from ISD's Voice Operations Section.



Mandatory 10-digit Dialing

Due to implementation of the mandatory 10-digit dialing plan for North America which will become effective October 2, 1994, the State of Montana is required to make changes to our current dialing procedures.

The first of these changes is the rearrangement of our current system of using location codes for dialing cities on the state telephone network. The current system for using these codes is described on page v in the general information section of the state telephone directory.

Effective August 22, 1994 the existing location codes will be replaced with a new numbering plan. All location codes will be eliminated except for location codes to Montana State Prison in Deer Lodge and Miles City Pine Hills School. The new codes for these cities are:

Deer Lodge - 996
Miles City - 997

Please be advised that all speed call lists, dial-up modems, auto-program codes, etc. that utilize the old numbering plan will have to be changed. For the cities without network location codes with the new numbering plan, the prefix will need to be dialed after this implementation.

The reasoning behind this new mandatory 10-digit dialing plan is that North America is currently exhausting its supply of available phone numbers. Part of the plan is to force all long distance calls to use 10 digits. (Example: 406-444-XXXX)

Right now, we are running out of numbers with a 444 prefix. Because of this, the State has decided to convert to a single digit access at the same time the mandatory 10 digit dialing takes effect. This single digit access number will be "8+" for both local and long distance access. This will help to open up more 444 prefix numbers.

To dial out of the State complex, you will need to dial 8+1+ NPA (Area Code)+ 7 digit number
(NOTE: To make a credit card call dial 8+0 followed by area code and 7 digit number). You will continue to dial four digits to call any other number on the State network.

If you have any questions about this change please call Ed Baum (444-2861) from ISD's Voice Operations Section.



Calling Card Fraud

Calling card fraud is a multi-million dollar business in the telephone world. Fraud occurs when another person obtains the calling card number and pin number from an authorized user. This can be done in any number of ways. Common methods of obtaining a calling card number are using a video camera and recording the numbers a person is punching in when making a call, or having a person stand behind an authorized caller memorizing the numbers a person is entering. Sometimes a person in the booth next to you can record your numbers by listening to the tones of the pushbuttons as you are entering your numbers. These people then record and sell the numbers to other buyers. According to Ed Baum, from ISD's Voice Operations Section, this happens at least once a month in Montana State Government! These scams are prevalent in all public access areas, such as hotel lobbies, airports, or any other area where a large number of public phones are located. Be protective when making calls from a public phone by not allowing others to see the numbers you are entering.

Our long distance providers have some built-in security to help protect us from fraud. For example, they can put a block on a calling card when

they notice simultaneous calls using the same card from two different locations. Calling card fraud is big business. If you use calling cards without exercising care, it is not a matter of *if* someone will obtain your card number and pin number, but *when* they will obtain it! Several cards issued by the State have already been blocked. When you are using calling cards, use caution.



Information Technology Manager's Group, August Meeting

At the August 10 meeting, the ITMG discussed issues associated with the State's migration to NetWare 4.x. Discussion revolved around a document prepared by the NetWare Manager Group (NMG). The NMG consists of ISD staff and agencies currently using, testing or planning to use NetWare 4.x. The recommendations identified by the NMG mark a departure from traditional network management within the State environment. Due to significant change in the way resources are managed (network-centric vs. server-centric) in NetWare 4.x, stronger centralized management is being suggested. It was agreed to give the group more time to digest the recommendations and to have a special meeting to discuss only NetWare 4.x enterprise software issues.

In other business, Linda Belflower of ISD brought the group up to date on the kick-off of a new project to establish mid-tier technology standards and a rejuvenation of the state-wide disaster recovery planning process.

ITMG chair Art Pembroke led a discussion of meeting dates and it was resolved that meetings will now be held the first Wednesday of the month.

Next meeting: September 21, 8:30 am, room 111, Lee Metcalf (DNRC) Building.

For more information on ITMG contact Art Pembroke (444-1794) or Linda Belflower (444-1635).

ORACLE

ISD has successfully negotiated a site license of ORACLE database products. The \$1.3 million license covers allowance of 616 concurrent users (2,464 total users) on an unlimited number of database servers. ORACLE is primarily intended for use in the mid-tier, Client/Server configuration and should be considered the new "State Standard" for small to medium-size databases. Oracle version 7.0 is available on 15 different platforms ranging from small INTEL based servers to the larger RS6000's and DEC's. Multiple projects have been initiated and many more are being considered.

ISD's System Support Bureau has two Oracle database administration specialists, Tony Noble and Dave Howse, to coordinate new server installations and assist in new project development. Tony is new to State Government and brings with him a knowledge of Oracle database administration and Oracle Tools in a DEC VAX environment. Besides the Oracle Tool set, ISD is promoting the use of PowerBuilder for application development.

Classes will soon be available at the Helena College of Technology

covering Oracle and PowerBuilder topics. In addition there will be monthly Oracle/PowerBuilder user group meetings beginning October 7, 1994 from 8:00 am to noon, at the Helena College of Technology. This will give developers a chance to get together and discuss problems (opportunities) and share ideas. There will also be presentations on optimization and advanced techniques. CBT's are also available from the Helena College of Technology Library.

If you have problems (opportunities) or questions regarding Oracle or PowerBuilder, call Dave Howse (444-1593) or Tony Noble (444-2922).



When you are typing a document in WordPerfect 6.0 for Windows, do you often misspell the same words over and over? If so, then QuickCorrect is a feature that you could use. You can configure it to automatically fix errors in spelling as you type. For example, if I would have typed the first sentence in this document with QuickCorrect turned on, I would have gotten:

"When you are typing a document in WordPerfect 6.0 for Windows, do you often misspell the same words over and over?"

WordPerfect automatically corrected the extra capital letter in "WHen", and the spelling of "doucument" and "mispel". This feature is great for people who seem to "mispel" the same word over and over again - but the same way each time.

To turn this feature on, Select Tools from the WordPerfect 6.0 for Windows Menu. Then, on the Pulldown menu, select QuickCorrect. A dialog box should pop up. In this dialog box, there is a list of words that WordPerfect will automatically correct, and several checkboxes as to what features you want enabled.

First, let's assume that you often mis-type the word *field* as *feild*. By using the mouse to scroll through the list of words which are automatically corrected, you find that *feild* is not listed in the replace...with box. So we need to add it. Type *feild* in the Replace box, and *field* in the With box. Then click on the add entry button. Make sure that both Replace Errors as You Type and Correct Initial Double Uppercase are checked, and then click on the Close Button.

Now, back in your document, try typing *feild*. You will find that WordPerfect automatically corrects it to read *field* when you press the space bar. In addition, try typing *The*. You will find that WordPerfect fixes it so it only has one uppercase character instead of two.

The other item available in QuickCorrect is SmartQuotes. With this turned on, WordPerfect automatically quotes words with "curly quotes" instead of "straight quotes." This adds a little touch of added professionalism to documents with not much added work. To use SmartQuotes, just select QuickCorrect from the Tools menu and make sure that Enable SmartQuotes is checked.

If you have any questions about WordPerfect, please call Forrest Christian (444-2921) from End User Systems Support.



Assigning Macros to Custom Icons in Lotus 1-2-3 for Windows

To assign a macro to a customized SmartIcon in Lotus 1-2-3 for Windows perform the following steps:

1. Select Tools.
2. Select SmartIcons.
3. Select Customize.
4. In the Custom Icons box, point to the icon desired to be assigned with the macro.
5. Click on the Assign Macro button.
6. After selecting one of the five following methods (Range Name, Point, Keyboard, Clipboard, Type), add the custom icon to the current icon palette.

To enter the macro, perform one of the five following methods from the Tools SmartIcons Customize Assign Macro dialog box:

- I. Range Names Method:
 1. Tab to the Range Text Box and Select [F3] or Range Names.
 2. From the Range Name dialog box that appears, tab or click on the range name that refers to the macro.
 3. Click on OK and the range name will appear in the Range Text box.
 4. Click on Get Macro. The range specified by the range name will then appear in the Macro text box.
 5. Click on OK.

II. Point Method.

1. Tab to the Range Text box.
2. Click and hold the left mouse button outside the dialog box.
3. The dialog boxes will be removed from the screen.
4. Press the ESCAPE key and continue to hold the left mouse button.
5. Move the mouse to the beginning of the macro range.
6. Press the Period key on the keyboard to anchor the range.
7. Highlight the entire range for the macro.
8. Release the left mouse button and the Tools SmartIcons Customize Assign Macro dialog boxes will reappear.
9. Click on Get Macro.
10. Click on OK.

III.Keyboard Method:

1. Tab to the Range text box.
2. Press the Down arrow key to go to the worksheet.
3. Press the ESCAPE key on the keyboard.
4. Move the cursor to the first cell of the macro.
5. Press the Period key to anchor the range.
6. Highlight the entire macro range.
7. Press RETURN and the Tools SmartIcons Customize Assign Macro dialog box will reappear.
8. Click on OK.

IV.Windows Clipboard Method:

Note - Before selecting Tools SmartIcons Customize, pre-select Edit Copy or the Copy to Clipboard SmartIcon. This will copy the macro to the Microsoft Window's Clipboard.

1. In the Tools SmartIcons Customize Assign Macro dialog box, place the cursor in the Macro Text box.
2. Press SHIFT-INSERT from the keyboard. This will copy the macro from the Windows Clipboard.

3. The macro will then appear in the Macro text box.
4. Click on OK.

V. Type Method

1. Type the macro directly in the Macro Text box.

Note - It is preferable to write and test the macro in the sheet before assigning it to a Custom Icon.

If you have any questions regarding Lotus macros and Smart Icon Assignment contact Brian Divine (444-2791) from End User Systems Support.



Multi-Sheet Spreadsheets

A multi-sheet spreadsheet is one which contains more than one sheet. You may ask why would one ever wish to create a multi-sheet spreadsheet? You could use one sheet for each month or quarter of data, and then have a totals sheet which summarizes all the data into one sheet. You could place all of your macros on a separate sheet. These are just a few examples of how you might want to use multi-sheet spreadsheets. The uses are boundless.

To add a new sheet in Lotus 1-2-3 for Windows Release 4.0, simply click on the New Sheet button, and then choose before or after depending on whether you want the new sheet to be inserted before or after the current

worksheet. See FIGURE 1: [NEW SHEET] to view the New Sheet button.

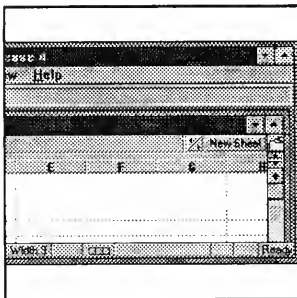


FIGURE 1: [NEW SHEET]

In Lotus 3.x Classic versions you must choose /Worksheet Insert Sheet. Lotus 1-2-3 will also prompt you to choose before or after, depending on whether you want the new sheet to be inserted before or after the current worksheet.

It is easy to move from one worksheet to another. In Lotus 1-2-3 for Windows Release 4.0 click on the file tab of the sheet you wish to go to. For example, in FIGURE 2: [FILE FOLDER TABS], you can click on any one of the four worksheet tabs (A, B, C, or D) to move to that worksheet.

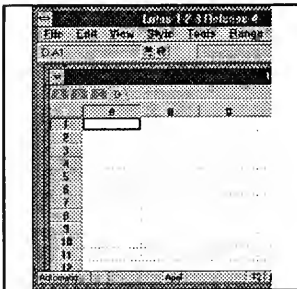


FIGURE 2: [FILE FOLDER TABS]

In Lotus 3.x Classic versions use the CTRL-PgUp and CTRL-PgDn keys to cycle through your multiple sheets.

When you are using multiple page spreadsheets, you have the option to either have all of the sheets function as a group or independently. You can

also change the view so that you can see multiple sheets on the screen at the same time. In Lotus 1-2-3 for Windows Release 4.0, you choose Style, Worksheet Defaults and check the group box to work in group mode. If you want to see your sheets in a perspective view, you need to check the View Split Perspective box. Please see FIGURE 3: [PERSPECTIVE VIEW] for an example of what a perspective view looks like. In this view you can easily see different worksheets on the screen at the same time.

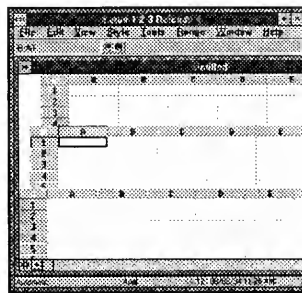


FIGURE 3: [PERSPECTIVE VIEW]

In 3.x Classic versions, you choose /Worksheet Global Group Enable. For a perspective view, choose /Worksheet Windows Perspective.

In last month's *ISD News and Views*, I discussed the select command {select A1..G5, A:A1}. If you remember, the A:A1 means sheet A, cell A1. If we wished to reference sheet B, then it would read {select A1..G5, B:A1}. This is exactly how formulas are also referenced.

Example: (A:A2+B:B3)/C:C2

This formula would add the contents on sheet A, cell A2 to sheet B, cell B3 and then divide that amount by the value of sheet C, cell C2. This may sound complicated but the formulas are not much different than the ones we write when using a single sheet format. I hope you have fun using multiple sheets.

If you have any questions concerning

Lotus 1-2-3, please call Brian Divine (444-2791) from End User Systems Support.



ZIP!Office Electronic Calendaring and E-mail

Last November ISD announced ZIP!Office as the State standard enterprise calendaring solution. ZIP!Office, a new LAN based application developed by the Attachmate Corporation, incorporates calendaring while offering enhancements to the current ZIP!Mail product. ZIP!Mail is widely implemented by the State and current ZIP!Mail users can be upgraded at *no cost*.

ZIP!Office will take advantage of the existing installed base of mail servers and gateways by utilizing the State's established connectivity resources. Thus, ZIP!Office will allow the State to capitalize on the existing infrastructure while obtaining local and enterprise wide calendaring.

For both Windows and DOS, ZIP!Office provides robust client services for E-mail messages, attachment of binary files, and workgroup, department or enterprise scheduling. Both ZIP!Office for DOS and Windows offer the same functionality.

Functionality:

ZIP!Office for DOS is a DOS based Graphical User Interface (GUI) providing sizable windows and pull down menus, allowing multiple windows to be open at once. It provides a pseudo-Windows environment in the DOS world.

By combining electronic mail and calendaring into a single application ZIP!Office presents the user with an automated desktop. ZIP!Office allows you to see and work with more than one window at the same time. For example, you may need to update your calendar while you work with the mail in your in-tray. Simply open your calendar, open your in-tray, and arrange the two windows on the screen.

By combining electronic mail and calendaring into a single application ZIP!Office presents the user with an automated desktop.

Common Functions Are Just a Mouse Click Away!

ZIP!Office for Windows displays a Toolbar across the top of the screen. The Toolbar contains graphical buttons that perform the most common functions. The in-tray, out-tray, folders, address book, and calendar all have toolbars specific to the functions available in each respective window. The pull down menus also change contingent upon the active window. Positioning your mouse pointer on a specific button displays a description of the

button's function in the lower left hand corner. In ZIP!Office for DOS, the toolbar is displayed at the bottom of the screen and the buttons are not displayed as graphics, but contain a textual description of the function performed.

ZIP!Mail is widely implemented by the State and current ZIP!Mail users can be upgraded at no cost.

Calendaring

The ZIP!Office calendar can be used to keep track of:

- Appointments:
Entries for your business activities
- Meetings:
Entries for group activities.
Anyone can schedule a meeting. If you receive a meeting notice in your in-tray, you tell ZIP!Office whether to add the meeting to your calendar.
- Notes:
You can add notes for each day.
You could use notes for reminders and "to do" lists.

You can mark appointments, meetings, and notes as Normal, Personal, or Confidential. Personal and Confidential are useful if you let other people access your calendar. For example, you could let them see Normal entries, but not allow them to see Personal and Confidential entries.

Calendar entries can be as far in the future (or past) as you wish. You are not limited to one or two years as with paper calendars. Days without entries do not use disk space.

The ZIP!Office calendar offers different view formats, you can choose the way a calendar is displayed on the screen by switching between the following formats:

- Daily -- Lists entries, day-by-day
- Weekly -- Lists entries for 5 days, side-by-side
- Monthly -- Like a wall calendar, shows busy periods
- Long range -- Displays several months at a time

Find Time & Conflicts

ZIP!Office includes a free-time search, referred to as "Find Time" to help facilitate group scheduling. When scheduling a group meeting ZIP!Office lets the user specify search criteria including: the start date, number of days the search can span, meeting duration, time period (eg. 8:00 to 5:00), and lunch hour exclusion (eg. 12:00-1:00) and then searches for available time slots for each group member. The first

ZIP!Office provides a "Conflicts" button you can click to see a daily view of all group members and their busy times.

available time slot is presented to the user for acceptance, or if rejected will continue the search and present the next available time slot. ZIP!Office provides a "Conflicts" button you can click to see a daily view of all group members and their busy times. You can also schedule series meetings on a daily, weekly, or monthly basis (eg. every Tuesday 10:00-10:30).

Industry Standard API's

ZIP!Office for Windows incorporates Messaging Application Program Interface (MAPI) and Vendor Independent Messaging (VIM). These messaging specifications allow documents to be sent directly from other Windows applications that support MAPI and VIM. For example, in WordPerfect for Windows you can send a document by just selecting "ZIP!Office Mail" from the File menu. This opens the address book so you can select who you want to mail this to, and then you can select the document on the screen or any other document to be mailed. You never even have to switch out of WordPerfect! Lotus 1-2-3 for Windows and Freelance for Windows both work in a similar manner.

ZIP!Office Enhancements- Changes from ZIP!Mail:

Both versions of ZIP!Office (DOS and Windows) allow multiple files to be attached to mail. The Windows version supports Object Linking and Embedding (OLE). Multiple OLE objects can be attached to mail as well.

ZIP!Mail offers two mail types: notes and messages. ZIP!Office discontinues the ZIP!Mail 256 character 4 line message type and consolidates messages and notes into a single mail type referred to as messages.

The Mail Library has been replaced with a folders concept, providing the user with an enhanced mail management capability. Folders can be created with subjects pertaining to mail categories.

The following enhanced mail handling capabilities are available to the user for customization of individual preferences:

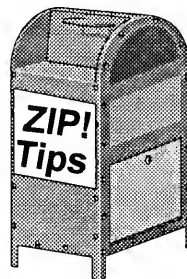
"Save Mail in out tray" - saves a copy of all mail sent.

"Reply to Copy List" - sends a copy of the reply to everyone who received the original item.

"Include original with Reply" - attaches the original correspondence to the reply.

"Delete messages to Trash" & "Delete old out tray items"--allows the user to specify the number of days to keep the trash folder items and the old out tray items.

If you are interested in connecting your agency to ZIP!Office or would like more details please call Kyle Wynn (444-2859) from End User Systems Support.



E-Mail Error Messages

After sending an E-Mail message to several people, the following error message appears in your in-tray:

Unable to deliver the following mail:

From: Doe, Jane

Sent at: 8-12-94 10:55a

Description: Note

Destination: Error
!AAA ADDRESS SELECTION
ERROR Hop count exceeded

(A similar message also displays in your out-tray.) How could this have happened?

Remember, pressing the spacebar while addressing mail is one way to select the highlighted name in the Address Book. ISD purposely placed the bogus name "!AAA ADDRESS SELECTION ERROR" entry as the first line in the Address Book. Approximately 1½ years ago, the first person listed in the address book complained of receiving a couple hundred pieces of mail each month that shouldn't have come to her. It was determined that ZIP!Mail users were accidentally pressing the spacebar while attempting to select recipients. Because her name was highlighted at the beginning of the list, she would inadvertently become a recipient of the mail. To end this scenario, the

phony selection was entered.

Another common error that occurs is when users send E-Mail to a Personal Distribution list they created. If someone in the list has terminated, their name is removed from the Address Book. When this occurs, a cryptic address (ie., SSEE001.DSVHOST or CW0987.TAO01) will replace the person's name in the Personal Distribution List. The following error message will be sent back to you:

Unable to deliver the following mail:

From: Doe, Jane

Sent at: 8-12-94 11:29a

Description: Note

Error detected at node DSVHOST

Destination Error
SSEE001.DSVHOST Invalid
user ID and address

To prevent these errors, frequently check the members of your distribution list and delete any numerical listings.

Sometimes you may select a person's name out of the Address Book and receive an error message after you have sent the mail. Invariably, an incorrect address was entered when the user was first enrolled in E-Mail, or perhaps the user was deleted from their local server, but not removed from the Address Book. Whatever the reason, these errors need to be brought to ISD's attention so the error can be corrected.

Please forward error messages to Sue Skuletich (444-1392) from End User Systems Support or call her with these or any other E-mail questions.



More Windows Freebies...

PC Magazine has recently published some free Windows utilities that we are passing on to interested parties. Following are synopses of HotKey, Switcher, and ThinDisk.

Hotkey

HK.EXE is a Windows 3.1 utility that lets you assign hotkeys to your programs with a much wider range of possible keystrokes than Program Manager. You can also use hotkeys to launch applications without switching to the Program Manager first.

Microsoft provided a way to assign hotkeys to applications in Microsoft's Windows 3.1 Program Manager, but this support is inadequate in several ways. For one thing, unless the Program Manager has the current focus, Microsoft's hotkeys won't actually launch the application; they take effect only if the program has already been started. For another, the allowable hotkey combinations you can employ are severely limited.

HK.EXE solves both these problems. With HK, pressing the hotkey brings up your application even if it is not yet running. And HK offers a much wider selection of possible keystrokes to use for hotkeys than the Program Manager. Configuring HK to implement your hotkey selections is very easy.

Switcher

Switcher lets multiple users work harmoniously on the same computer by saving and providing quick access to individual Microsoft Windows 3.1 configurations, or lets a single user define multiple Windows configurations, switching easily to the desired setup. Switcher can save and restore such settings as wallpaper, mouse speed, button configurations, and screen saver.

Use the Windows Control Panel to configure Windows the way you want, and then select Add New Button from Switcher's Button menu. You will be prompted for a button name and some optional information. To create additional buttons, go through the same process again. Reconfigure Windows using Control Panel, select Buttons x Add New Button, and then give the new button a name. To switch configurations, simply click the desired button.

The optional fields in the Add New Button dialog box are Startup program, Cleanup program, and

Resave on Switch. The Startup program is launched when the button you are configuring is clicked; the Cleanup program is

launched when a different button is clicked. Both programs can be script files for Windows batch-program utilities, such as WinBatch or WINCMD. With the Resave on Switch option enabled, Switcher will resave your button settings any time a configuration change is made. When this feature is not enabled, the setup for a button will remain as it was originally configured, regardless of later changes to the desktop

Switcher lets multiple users work harmoniously on the same computer by saving and providing quick access to individual Microsoft Windows 3.1 configurations....

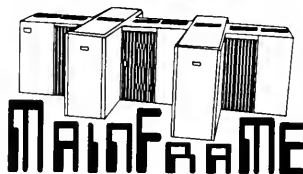
ThinDisk

ThinDisk makes it easier to trim the fat from your hard disk by deleting unneeded files. It can list all the files on your hard disk or only those meeting certain criteria. You can search for files by name, size, date, or file attributes. When you've found the files you're looking for, you can use ThinDisk to copy or delete them.

ThinDisk is a Windows utility specially designed to help you review and prune the contents of your hard disks. It makes a list of all the files on your system, and then lets you sort them by name, extension, size, or date. If you don't want to view all the files at once, you can choose to display only those files meeting certain criteria, such as LST files over 10,000 bytes long.

Another way to navigate through the file list is to use ThinDisk's search feature. You can hunt for files by name, size, date, or file attributes. Once you've found the files of interest, you can use ThinDisk's Copy and Delete functions to act on the files and trim the fat from your hard disk. You can look at the files on several drives at once, but only if there are fewer than 16,384 files. If there are more files than that on the drives you have selected, ThinDisk will inform you of the problem and ask you to select fewer drives.

If you would like a copy of HotKey, Switcher, or ThinDisk contact Denny Knapp (444-2072) from End User Systems Support via ZIPMail or by phone.



LPC-FINALIST Address Certification

ISD has installed release 6.5 of the LCP FINALIST address certification software. This release exceeds all the requirements of the new USPS Address Management System II (AMS II) file. The USPS developed the AMS II file to enhance the quality of address data. As of July 31st, all previous versions of FINALIST and the City and Data files became outdated.

New features in Finalist 6.5 include:

- Increased matching logic to identify streets with multiple names.
- Enhanced firm (company) and high rise apartment address matching.
- Enhanced handling of house numbers containing dashes.
- Enhanced algorithms to increase the quality of street matching.
- New AMS II carrier route formats.
- New support for CICS release 3.3.
- New USPS required data file expiration.

The LCP FINALIST record definitions have changed. Online IDMS dialogs that use the IDMSMSG field must be regenerated. All other dialogs and programs should be regenerated/recompiled to pick up the new record definitions. Changes include a new tailoring option that define how alias street name matches should be processed, and FINAL-REASON-CODE8 that will provide information about the processing of alias street names.

The LCP FINALIST copy library name has been changed to reflect the release level.

The current or 6.4 release name is F00.FNLST.SOURCE

The new release 6.5 dataset name is SYST.FNLST.R65.SRCLIB

This version of LCP FINALIST will be moved into production on September 18, 1994.

Any questions or comments should be directed to Glen Stroop (444-2910) from Systems Development Support.

SYNCSORT Tips

SYNCSORT - And Large Sort Files

With the old 3.3 release of SYNCSORT, when users needed to sort large files, ISD would recommend they code the VSCORE and VSCORET in their JCL. With the new 3.5 release of SYNCSORT, the default values for these parameters have been increased. This means your job will do more sorting in memory and reduce the amount of DASD needed to sort your file. The DASD savings amount to over 100 cylinders of sort work space on files ranging in size from 615 megabytes to 1162 megabytes. Increasing the memory above these new settings did not provide additional savings on the sort work space requirements, nor on the elapsed CPU times.

If you coded the VSCORE and VSCORET statements, they should be removed from your JCL for any sort with a file size smaller than 1000 megabytes or 1 gigabyte. With this new release of SYNCSORT, some jobs have abended because these parameters were in the JCL.

SYNCSORT - And The BMSG PARM

Another feature of the new release of SYNCSORT is the BMSG parm option. If you add BMSG to your PARM statement for external sorts, or \$ORTPARM DD statement for internal sorts, the SYNCSORT printout will include some WERxxx B informational messages that contain additional information about memory used and device allocation.

SYNCSORT - And Dynamic Allocation Of SORTWK DD'S

Another feature of the new release of SYNCSORT is its ability to dynamically allocate additional sort work space for your job to the SYSDA work packs. This is a good feature for small sorts. In fact, for small sorts you don't have to code any SORTWK DD's. However, for large sorts (sorts where you have 3 or more volumes of sort work space) dynamic allocation of SORTWK DD's can cause some serious problems. SYNCSORT will typically use your first three sort work files. Then it will dynamically allocate additional SORTWK data sets on SYSDA before using the rest of your sort work files.

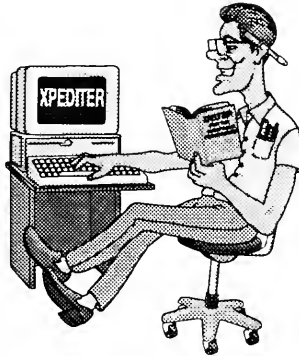
As an example, you have coded eight SORTWK DD's each with a space requirement of (CYL,(600,200),RLSE), to a different work pack. SYNCSORT will use your coded SORTWK01, SORTWK02, and SORTWK03 statements. SYNCSORT will then start dynamically allocating SORTWKnn data sets to SYSDA until either your job ends or there is no space left on SYSDA, at which time SYNCSORT will then use your coded SORTWK04, SORTWK05, etc.

When sorting large files (sorts where the filesize exceeds 1 gigabyte) either schedule your jobs with Dave Smith to be run when the demand on the

system is low, or add the DYNALOC=(OFF) parameter to your JCL. This statement should be added to your PARM statement for external sorts, or \$ORTPARM DD statement for internal sorts. This statement turns off dynamic allocation of additional SORTWK data sets. Do not code this statement for small sorts.

SYNCSORT - And SYSDA

ISD currently has four 3380 disk volumes assigned to SYSDA. Jobs with large sorts (greater than 1,500 cylinders) should be scheduled with Dave Smith (444-2857) to ensure the requested space is available. For more information about SYNCSORT and its uses please call Glen Stroop (444-2910) from Systems Development Support.



XPEDITER For The Mainframe Programmer

ISD has entered into a trial agreement with COMPUWARE Corporation for an evaluation of their XPEDITER line of products. XPEDITER is one of the premier Testing and Debugging software products on the market today.

The products we are evaluating are XPEDITER/TSO and

XPEDITER/CICS. XPEDITER/TSO can be used in the batch environment to test and debug COBOL, PL1, and Assembler programs. XPEDITER/CICS can be used to test and debug COBOL, PL1, and Assembler programs running under CICS.

Some of the product feature are:

XPEDITER/TSO

- Dynamic file allocation from your JCL
- Automatic abend detection
- Review execution in the reverse direction
- Analyze program logic

XPEDITER/CICS

- Automatic abend detection
- Analyze program logic
- Interface with AbendAid/CICS
- VSAM File Utility

Two training sessions have been scheduled at the Helena College of Technology.

- Training for XPEDITER/TSO will be held on September 21 from 9:00 to 4:00.
- Training for XPEDITER/CICS will be held on September 22 from 9:00 to 4:00.

You must fill out the registration form located at the end of this newsletter and send it to the address listed on the form.

These products will be available only during the evaluation period which will end October 28, 1994. Based on a favorable response, ISD will proceed with licensing these products for our mainframe system.

Any comments or questions should be directed to Glen Stroop (444-2910) from Systems Development Support.



Term Contract Status

Dell

Recently several agencies have voiced

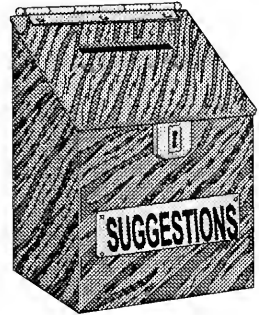
their disappointment concerning Dell's warranty service. The one-year warranty that comes free with new machines guarantees Next Business Day on-site service. Agency complaints mostly center around Dell's inability to fix problems within the next business day. The Computing Policy and Development (CPD) group met with Dell representatives in early August. Dell has resolved to improve their service performance by assigning a service technician to the State, and stocking critical components in Helena. If you have a Dell machine under warranty that needs service, please call Victor Williams (800/274-7799 ext. 67081). Agencies are urged to contact CPD with any vendor problems they are experiencing.

PLEASE NOTE:

Effective immediately, Larry Wayne is no longer our Dell contact. The new contact is Eric Bistrup (800/981-3355, extension 61427). Please make a note of this and try to contact him instead of Larry.

ComputerLand of Missoula

Mindy Palmer is now the new customer contact person. She takes Earl Kent's place, and can be reached at the same number (329-7660). Call her for pricing, order status, and availability.



Suggestions??

We are constantly searching for new ideas that could enhance *ISD News & Views*. Perhaps there are subjects you would like to see covered in future articles, or maybe you just wish to share comments on the "NEW" *ISD News & Views*. We would like to hear from you.

Our goal is to present a vehicle, which provides information on technical topics of common interest, to all agencies within state government. Please share with us any ideas you have that will enable us to keep pace in an ever changing environment. To share your ideas, please contact the editors of *ISD News & Views*.

ISD Customer Support Center 444-2000

Got a problem (opportunity)? Do you need ISD assistance for any of your information processing requirements? Then contact the ISD Customer Support Center (formerly the Network Assistance Center), which is our central point of contact.

Distribution Notes

850 copies of this public document were printed at a cost of \$296.60.

Distribution costs are \$18.25.

112 copies of this document were distributed electronically at no cost.

Editors: Curt Secker and
Irv Vavruska

Published by:

Information Services Division
Department of Administration
Room 222, Mitchell Building
Helena, Montana 59620
406/444-2700

ISD
Information Services Division

Training News

This document has been assembled by the Helena College of Technology of the UM. If you have any questions about enrollment, please call 444-6800.

To enroll in a class, you must send or deadhead an enrollment application to the State Training Center, HCUM, Helena, MT 59601. If you have questions about enrollment, please call 444-6800. Once you enroll in a class, the full fee will be charged UNLESS you cancel at least three business days before the first day of class.

All classes will be held at the Helena College of Technology, Room 210, at 1115 N. Roberts, unless another location is specified. Please note that these costs are subject to change each July 1st.

	<u>DATES</u>	<u>COST</u>	<u>LENGTH</u>
Data Network/Mainframe Classes			
Intro to Novell Networking	October 5 & 6	170.00	2
Introduction to Oracle	October 12, 13 & 14	212.50	2 1/2
PowerBuilder	November 1, 2, & 3	255.00	3
Microcomputer Classes			
Introduction to DOS	September 1	85.00	1
Intermediate DOS	September 2	85.00	1
Introduction to Windows	September 6	85.00	1
Introduction to Windows	October 17	85.00	1
Word Processing Classes			
Introduction to WordPerfect	September 26, 27 & 28 am	127.50	1 1/2
WordPerfect Merge & Sort	September 29 am	42.50	1/2
WordPerfect Macros	September 30 am	42.50	1/2
WordPerfect 6.0	September 26 & 27 pm	85.00	1
WordPerfect for Windows	October 25, 26, 27 & 28	170.00	2
WordPerfect Advanced Macros	November 28	42.50	1/2
WordPerfect Columns & Math	November 29	42.50	1/2
WordPerfect Tables	November 30	42.50	1/2
Spreadsheet Classes			
Lotus for Windows	September 12 & 13	170.00	2
Introduction to Lotus	October 25, 26, 27 & 28	170.00	2
Database Classes			
Introduction to R:BASE	November 21, 22 & 23	212.50	2 1/2

The Helena College of Technology makes reasonable accommodations for any known disability that may interfere with a person's ability to participate in training. Persons needing an accommodation must notify the College no later than two weeks before the date of training to allow adequate time to make needed arrangements. To make your request known, call 444-6800.

ISD CLASS ENROLLMENT APPLICATION
COMPLETE THIS APPLICATION IN FULL AND
RETURN IT ONE WEEK PRIOR TO THE FIRST DAY OF CLASS

COURSE DATA

Course Requested: _____

Date Offered: _____

STUDENT DATA

Name: _____

Soc. Sec. Number (for P/P/P): _____

Agency & Division: _____ / _____

Mailing Address: _____

Phone: _____

Agency # : _ _ _ _

How have you met the required prerequisites for this course?
Explain, giving the class(es) taken, tutorial(s) completed, and/or
experience.

BILLING INFORMATION/AUTHORIZATION MANDATORY

Responsibility Center: _____

Authorized Signature: _____

FULL CLASS FEE WILL BE BILLED TO THE REGISTRANT UNLESS
CANCELLATION IS MADE THREE BUSINESS DAYS BEFORE
THE START DATE OF THE CLASS.

DEADHEAD COMPLETED FORM TO:
COMPUTER TRAINING CENTER
HELENA COLLEGE OF TECHNOLOGY
OF THE UNIVERSITY OF MONTANA
PHONE 444-6800 FAX 444-6892



Department of Administration
Information Services Division
Mitchell Building, Room 21
P.O. Box 200113
Helena, MT 59620-0113

HAROLD CHAMBERS
MONTANA STATE LIBRARY
REFERENCE & INFO SERVICES
ASIS E SIXTH
HELENA MT 59600

SEARCHED